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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/621,388	07/21/2000	Daniel Yellin	162/01498	4449

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EXAMINER

PHU, PHUONG M

ART UNIT PAPER NUMBER

2631

DATE MAILED: 08/06/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/621,388

Applicant(s)

YELLIN ET AL.

Examiner

Phuong Phu

Art Unit

2631

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 3,4,7-25 and 31-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,4,7-25 and 35-37 is/are allowed.
- 6) ☒ Claim(s) 31-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This Office Action is responsive to the Amendment filed on 6/9/04.

#### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 32 and 34 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

Claim 32 omits functional/structural/connectional interrelationships of components “matrix multiplier” and “correction matrix” to each other, and omits functional/structural/connectional interrelationships of these components with other components (e.g., “in-phase/quadrature phase correction unit”, “mismatch trainer”, “in-phase/quadrature phase modulator”, etc.), recited in claims 31 and 32, for making the claimed invention as a complete operative/connective system.

Claim 34, as dependent on claim 32, are therefore also rejected with the above reason.

#### *Claim Rejections - 35 USC § 102*

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 31 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Masenten (6,535,560), previously cited.

As per claim 31, see figures 1-4 and col. 3, line 39 to col. 14, line 58, Masenten discloses a transmitter system (figure 1), (which is counted for “transmitter”), wherein the transmitter system comprises:

a mismatch trainer (112) (see figure 1) to adjust I mismatch and Q mismatch parameters (Calibration parameters); and

a conversion unit (110), (which is counted for “reverse conversion unit”), having a demodulator (120) (see figure 2), a correction parameter distributor (130) (see figure 3) (counted for “correction matrix”), and a mismatch multiplier (138, 139, 144, 145) (see figure 3); wherein the mismatch trainer provides the I mismatch and Q mismatch parameters as correction values to the correction parameter distributor (see figure 3) to be used by the mismatch multiplier to cancel mismatch effects of the demodulator.

As per claim 33, Masenten discloses that the mismatch trainer is adapted to adjust the mismatch parameter iteratively (see figures 3 and 4, and col. 3, lines 26-35).

*Allowable Subject Matter*

6. Claims 3, 4, 7-25 and 35-37 are allowed.

*Response to Arguments*

7. Applicant's arguments filed on 6/9/04 have been fully considered but they are not, in part, persuasive.

The previous rejection, under 35 U.S.C. 112, second paragraph, to claims 32 and 34 are now withdrawn since the claims were amended to overcome the rejection. However, upon further consideration, the claims are deemed still rejected, under 35 U.S.C. 112, second paragraph, with the new reason set forth above in this Office Action.

Applicant's argument with respect to the rejection to claim 31, under 35 U.S.C. 102, is not persuasive. The applicant mainly argues that (i) Masenten does not disclose the claims feature of "a transmitter comprising a mismatch trainer to adjust a value of an I and Q parameter", and (ii) Masenten does not disclose the claims feature of "a reverse conversion unit of a transmitter".

Regarding to part (i), the examiner respectfully disagrees. See figure 1, Masenten discloses a transmitter system (figure 1), which is counted for the claimed feature "transmitter", as claimed, wherein transmitter system comprises a mismatch trainer (112) to adjust values of I and Q parameters (Calibration Parameters).

Regarding to part (ii), the examiner also disagrees. See figure 1, Masenten discloses that the transmitter system comprises a conversion unit (110), which is counted for the claimed feature "a reverse conversion unit".

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***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Phu whose telephone number is 703-308-0158. The examiner can normally be reached on M-F (8:30-6:00) First Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on 703-306-3034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Phuong Phu*

Phuong Phu  
08/29/04

Phuong Phu  
Primary Examiner  
Art Unit 2631

**PHUONG PHU  
PRIMARY EXAMINER**